

## CLAIMS

1. A process for the preparation of catalyst particles with a particle diameter in the range 20-2000 microns, which process comprises the steps of:
  - 5 a) agitating at least two dry catalyst ingredients,
  - b) spraying a liquid binding agent on the catalyst ingredients while continuing the agitation,
  - c) isolating formed catalyst particles with the desired particle diameter and comprising the catalyst ingredients, and
  - 10 d) optionally calcining the isolated catalyst particles.
2. The process of claim 1 wherein agitation is performed by high-shear mixing.
3. The process of claim 1 wherein agitation is performed by fluidization.
- 15 4. The process of claim 1 wherein at least one of the catalyst ingredients is alumina, clay, or zeolite.
5. The process of claim 4 wherein the catalyst particles are FCC catalyst particles or FCC catalyst additive particles.
- 20 6. The process of claim 1 wherein the liquid binding agent is selected from the group consisting of water, an aqueous acidic solution, a silicon-containing solution or suspension, a suspension comprising aluminum chlorohydrol and/or aluminum nitrohydrol, and mixtures thereof.
- 25 7. The process of claim 2 wherein the shear rate applied on the catalyst ingredients during high-shear mixing ranges from 250 to 1000 s<sup>-1</sup>.

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